SHISHKOV, Georgiy, doktor

The basis of a profitable enterprise is a correct selection of its type (translated from the Bulgarian). Obshchestv.pit. no.1: 52-53 Ja '62. (MIRA 15:4)

(Bulgaria--Restaurant management)

SHISHKOV, Georgi A., d-r, st. n. sutr.

Preserving biological value of food products. Priroda Bulg 13 no. 2:54-58 Mr-Ap '64.

1. Institute of Nutrition, Bulgarian Academy of Sciences.

BULGARIA

S 13 K/V, T.

[Acade 'c Degrees]

[Affiliation]

[Source] Sofia, Sredeu Vaditsinski Rabotnik, No 5, 1962, pp 28-29.

[Date] "Significance of Vegetables and Fruits in the Feeding."

1. G. I. SHISHKOV

2. USSR (600)

4. Agricultural machinery

7. Success in mechanizing livestock sections of Rybnoye District collective farms. Sots zhiv. 15 no. 1. 1953

9. Monthly List of Russian Accessions, Library of Congress, ~~April~~ 1953, Uncl.

Sa[illegible]V, G. I.

Machine-Tractor Stations

Machine-tractor station helps collective farms gather and store feeds,
Sots,zniv, 15, No. 3, 1953

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

L 11612-66 EWT(1)/EWA(h)

ACC NR: AP5028791 SOURCE CODE: UR/0108/65/020/009/0046/0057

AUTHOR: Model', A. Z. (Active member); Shishkov, G. N. (Active member)

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Positive-feedback sawtooth-voltage transistorized oscillators analyzed

SOURCE: Radiotekhnika, v. 20, no. 9, 1965, 46-57

TOPIC TAGS: transistorized oscillator, electronic oscillator, sawtooth oscillator, electronic feedback, electronic circuit, transistor

ABSTRACT: Transistorized positive-feedback ("bootstrap") sawtooth oscillators have not come into wide usage because of their too long flyback and insufficient sawtooth-voltage linearity. A new method of correcting the nonlinearity is suggested and mathematically substantiated; the method is based on controlling the gain of the oscillator amplifier. Fundamental relations are developed for two circuits: with a feedback battery and with a feedback (large) capacitor. For eliminating the sawtooth-voltage nonlinearity, introduction of a two-stage transistorized amplifier with a variable in-excess-of-1 gain is recommended; the 2-stage amplifier replaces the

Card 1/2 UDC: 621.396

L 11612-66

ACC NR: AP5028791

emitter follower in well-known sawtooth oscillator circuits. An experimental verification with P101 and P105 transistors exhibited a practically linear transfer characteristic and a gain stable within 1.5% at temperatures within 20 ± 30C. Also, the use of a voltage-regulating (Zener) diode in lieu of the large capacitor (feedback-voltage source) is indicated. Orig. art. has: 9 figures and 57 formulas.

SUB CODE: 09 / SUBM DATE: 22Nov63 / ORIG REF: 003 / OTH REF: 001

Card 2/2

SHISHKOV, I; KMETS, A.

Reorganization has been due. Sots. trud no.4:19-20 Ap '57.
(MLRA 10:6)

1. Predsedatel' zavodskogo komiteta profsoyuza Nevskogo mashinostroitel'nogo zavoda im. V.I. Lenina (for Shishkov). 2. Zamestitel' nachal'nika otdela truda i zarplaty Nevskogo mashinostroitel'nogo zavoda im. V.I. Lenina (for Kmets).

(Wages) (Labor bureaus)

MOSKATOV, P.; ZELENKO, G.; BORDADYN, A.; MAL'TSEV, B.; KIRPICHNIKOV, P.; DONSKOY, G.; KARTSEV, S.; MOISEYEV, P.; SAMOYLOV, P.; SHISHKOV, I.; NAUGOL'NOV, A.; PAPERNOV, N.; GORBACHEV, S.; SHABLIYEVSKIY, G.; GOLUBEV, S.

IA.T. Remizov. Prof.-tekh. obr. 15 no.4:3 of cover Ap '58.
(Remizov, IAkov Terent'evich, d. 1958) (MIRA 11:5)

SHISHKOV, Iv.

BULGARIA/ Farm Animals. Small Horned Stock.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40475.

Author : Ganovskiy Khr., Stoykov D., Shishkov, Iv.
Inst : Not given.
Title : The Study of the Digestibility and Nutritiousness of Alfalfa and Clover.

Orig Pub: Nauchn. tr. Vissh. veterinarnomed. in-t, 1956, 4 441-453.

Abstract: An experiment was carried out on fistulous and on normal sheep. It was found that intestinal digestion is intensified under the influence of succulent feeds, such as alfalfa and clover, which contributes to the higher consumption of these feeds. The amount of the chyme attains 28.152 liters per day and the average amount of

Card 1/2

GRIGOROV, P., inzh.; SHISHKOV, Iv., inzh.

Continuous lines and automatic equipment in plywood production.
Durvomebel prom 5 no.1:5-10 Ja-F '62.

1. Vissh lesotekhnicheski institut.

SHISHKOV, Ivan, inzh., asistent

Automatic continuous unrolling and cutting in plywood production. Derv. prom. 6 no.5:16-20 S-O '63.

1. Visshi lesotekhnicheski institut.

1. CHISHKOV, I. A., Eng.

2. USSR (600)

4. Chimneys

7. Movable head of a mine hoist used in building reinforced concrete smokestack pipes, Mud. stroi. tekh., 9, No. 21, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March, 1953. Unclassified.

GOYKOLOV, Ye.F.; KANTOROVICH, I.G., inzh.; PETROV, P.V.; RAYTSESS, A.Ya.; CHERNOV, A.V., inzh.; SHASHKOV, V.F.; SHISHKOV, I.A.; SHMIDT, Kh.M.; KEYMAKH, L.I., retsenzent; KUDRYAVTSEV, A.V., retsenzent; V redaktirovanii prinimali uchastiye: ZOTOV, A.V.; TELYANER, D.M.. SHIROKOVA, G.M., red.izd-va; STEPANOVA, E.S., tekhn.red.; RUDAKOVA, N.I., tekhn.red.

[Handbook for builders of reinforced concrete industrial chimneys and silos] Spravochnik stroitelia zhelezobetonnykh zavodskikh trub i silosov. Pod red. A.V.Chernova. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 300 p.
(MIRA 13:1)

(Silos) (Chimneys)

SHISHKOV, I.I.

Shishkov, I.I. "The growth of spruce roots and the practical significance of this factor", Trudy Lesotekhn. akad. im. Kirova, No. 63, 1948, p. 143-46.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

SHIS[illegible]. I. I.

[illegible]

Vliyaniye rubok ukhoda na vlagnost' pochvy v sosnyak·kh lyesostye pi. Uchyen. Zapiski (Lyesnoy: Pos. Un-t. Im. Zhdanova), Syeriya. Biol. Nauk, Byp. 17, 1949, S. 134-43 - Bibliogr: 15 Nazv

4. Agrotyekhnika. Obshchyeye rastyenivyevodstvo. Zashchita rastyeniy

SO: LETOPIS No. 34

SHISHKOV, I.I.

3560. SHISHKOV, I.I. Osnovy Lesovodstva i Lesnoy Taksatsii Metod. Ukazaniya Dlya Studentov, Inzh-Ekon Fak (Polesozagotovit. Spetsial'nosti) L., Izd-vo VZLTI, 1954. 36s. 20sm (M-vo Vyssh Obrazovaniya SSSR Vsesouliz. Zaoch Lesotekhn In-t). 350ekz. Bespl--(54-57707) 634.9 (071.4)

SO: Knizhnaya Letopis', Vol. 3, 1955

SHISHKOV, I.I.

USSR/Forestry - Dendrology. K-2

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91507

Author : Shishkov, I.I.

Inst : Leningrad Forest Technology Academy.

Title : The Problem of the Spruce Tree Forms.

Orig Pub : Tr. Leningr. lesotekhn. akad., 1956, vyp. 73, 133-144

Abstract : In 1950, at the Lisinskiy Experimental Training Leskhoz, form differences according to branching were investigated. The method of investigation is described. Five forms are reported: the long-petinate, average-pectinate, irregular-pectinate, compact, and palmate. Moreover, morphological and biological peculiarities of the forms of early and late blossoming spruce-trees were studied. The first form develops leaf buds 2-3 weeks earlier, the second one is characterized by a more intensive growth

Card 1/2

Country : USSR
Category: Forestry. Forest Management.

Abs Jour: RZhBiol., No 11, 1958, No 48732

Author : Shishkov, I.I.
Inst : Leningrad Forest Technology Academy
Title : Forest Renewal in Clear Cuttings of the Karelian ASSR.

Orig Pub: Tr. Leningr. Lesotekhn. akad. 1957, vyp. 81, ch. 2, 13-20

Abstract: Natural renewal in clear cuttings proceeds satisfactorily but its character and periods are extremely variegated. This variegation in renewal is noted within the boundaries of a single forest cutting because of the mosaic quality of the

Card : 1/3

SHISHKOV, I.I.

Gradual cuttings in spruce-hardwood and hardwood-spruce stands. Nauch. trudy LTA no.99:41-48 '62. (MIRA 17:1)

SHISHKOV, Ivan Ivanovich; POPOVA, Nadezhda Sergeyevna; MAKAROVA, O.V., red.

[Forestry with the fundamentals of forest plantations] Lesovodstvo s osnovami lesnykh kul'tur. Moskva, Vysshaia shkola, 1965. 365 p. (MIRA 18:7)

MEL'NIKOVA, [illegible], inzh.; SHAKHTSKIY, V.G., inzh.; [illegible], inzh.; SHISHKOV, I.M., inzh.

Automation of the hydroelectric power stations of the Bukovskiy Regional Power System for parallel operation with its power system. Energ. i elektrotekh. prom. no.3:7-10 Jl-S '64.

(MIRA 17:11)

SHISHKOV, K.

A club on the shore of Angara River. Sov.profsoiuzy 7 no.18: 32-34 S '59. (MIRA 13:2)
(Angara River--Bridge construction)

SHISHKOV, K. (Khersonskaya oblast')

Visit your neighbors, "Berislavskii" farmers! Sov. profsoiuzy 16 no.4:37-40 F '60. (MIRA 13:3)
(Kherson Province--State farms) (Libraries, Rural)

SHISHKOV, K.

Everyone finds the clubs interesting. Sov. profsoiuzy 18 no.13:41-42 Jl '62. (MIRA 15:6)
(Poland—Community centers)

SHISHKOV, K. (Kiyev)

The activist is not a guest at the club. Sov.profsoiuzy 19 no.3:18-19 F '63. (MIRA 16:2)
(Ukraine--Community centers)

USSR / Soil Science. Physical and Chemical Properties of Soil. J

Abs Jour: Ref Zhur-Biol., No 7, 1958, 29462.

Author : Shishkov, K.N.
Inst : Not given.
Title : Soil Moisture Conditions During the Irrigation of Perennial Grasses, Sugar Beets and Winter Crops (Wheat, Rye). (Vodnyy rezhim pochvy pri oroshenii mnogoletnikh trav, sakharnoy svekly i ozimnykh kul'tur (pshenitsa, rozh').

Orig Pub: V sb.: Orosheniye s.-kh. kul'tur v Tsentr.-chernozemn. polose RSFSR. vyp. 2, M., AN SSSR, 1956, 83-116.

Abstract: The water conditions of the carbonate and typically chernozem soils of Kurskaya Oblast' were studied in 1950. It was determined that for

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SHISHKOV, K.N.

YEMEL'YANOV, V.A.; SHISHKOV, K.N.

Using the method of gamma-ray fluoroscopy in determining the humidity and density of soils. Biul. tekh.-ekon. inform. no.1: 60-61 '57. (MIRA 11:4)

(Soil physics) (Gamma rays)

K. N.

99-58-2-3/9

AUTHORS: Astapov, S.V., Professor, Yemel'yanov, V.A., Candidate of Agricultural Sciences, Shishkov, K.N., Candidate of Agricultural Sciences

TITLE: An Experiment in Applying Radioactive Isotopes of Cobalt and Iodine in Meliorative Research (Opyt primeneniya radioaktivnykh izotopov kobal'ta i yoda v meliorativnykh issledovaniyakh)

PERIODICAL: Gidrotekhnika i Melioratsiya, 1958, # 2, pp 22-29 (USSR)

ABSTRACT: The Pochvenno-meliorativnaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta gidrotekhniki i melioratsii (Soil Meliorative Laboratory of the All-Union Scientific Research Institute of Hydro-engineering and Melioration) in 1956 examined the aquatic and sub-soil properties of the Meshchersk lowlands, using the radioactive isotopes Co^{60} and I^{131}. Radioactive cobalt was used as a gamma-radiator for determining, by radioscopy, the density and huminity of the soil. The radioactive iodine indicated, with the aid of "marked atoms", the sub-soil water movement and the filtration properties of the soil. The gamma-radiation of these isotopes were measured with the "STS-5" counter.

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99-58-2-3/9

An Experiment in Applying Radioactive Isotopes of Cobalt and Iodine in Meliorative Research

There are 3 tables, 4 graphs, 1 photo, 4 Soviet and 1 foreign (collective) references.

AVAILABLE: Library of Congress

Card 2/2

30(1) SOV/99-59-4-10/10

AUTHOR: Shishkov, K.N., Candidate of Agricultural Sciences

TITLE: Information (Informatsiya). International Mobile Exhibition of Instruments (Mezhdunarodnaya peredvizhnaya vystavka priborov)

PERIODICAL: Gidrotekhnika i melioratsiya, 1959, Nr 4, pp 62-64 (USSR)

ABSTRACT: The article is concerned with an international mobile exhibition of instruments and other measuring devices for agricultural research. It was opened in Moscow, on the VDNKh SSSR, grounds, "Severnyy Kavkaz" Pavilion, on January 25, 1959. Apart from the USSR, the following countries were taking part in the exhibition: Hungary, GDR, Poland, and the CSR. There were some 1,200 exhibits put on display. The article lists the following Soviet apparatuses and instruments for testing the properties of earth, plants, and surface air:

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Information. International Mobile Exhibition of Instruments.

Soil Drills

There is a total of 11 drills exhibited, 5 of which are intended for manual work with earth samples to be taken from a shear zone. They are as follows: 1) Rozanov's drills, 2) drill of the Derkul'skaya station, 3) VNIIALMI drill for solid grounds, 4) VNIIALMI drill with a double bucket, and 5) VIUA drill. The remaining 6 drills of a heavier type are: 1) I.A. Turlyun's percussion and cam drill, 2) drill of M.N. Pol'skiy and P.U. Bakhtin, 3) mechanized vibration soil drill of the Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii imeni A.N. Kostyakova (All-Union Scientific Research Institute of Hydraulic Engineering and Melioration imeni A.N. Kostyakov), 4) "Bur geologa" drill set, 5) TB-5-type peat drill, and 6) "Itan"-type drill.

Card 2/5

Information. International Mobile Exhibition of Instruments.

Devices for Determining Granulometric Composition of Various Soils

1) Rotating apparatus for screen analysis of sands, 2) apparatus for analysis of the mechanical and micro-aggregate composition of soils, 3) apparatus for determining the granulometric composition of sands, 4) soil hygrometer, 5) N.A. Kachinskiy's mechanical mixer for shaking soil suspensions and 6) soil screens.

Apparatuses for Study of Aquatic and Physical Properties of Soils

1) VIUA apparatus, 2) V.S. Luk"yanov's hydraulic integrator of the IG-3-type, 3) I.M. Litvinov's PPL-9-type field laboratory, 4) Kovalev's density meter and hygrometer, 5) N.A. Kachinskiy's apparatus for determining volumetric weight of soils, 6) apparatus of N.A. Kachinskiy and Z.A. Korchagina for determining water permeability of soil under field conditions, 7) VNIIGiM membrane press, 8) VNIIGiM vacuum and

Information. International Mobile Exhibition of Instruments.

capillary meter, 9) Vasil'yev's cone, 10) PVM-type apparatus for determining water permeability, 11) PV-type apparatus for determining water seepage, and 12) EGDA-8/56-type apparatus.

Apparatuses for Determining Soil Dampness and Sprinkling Periods

1) soil hygrometer with a mercury manometer, 2) soil hygrometer with a vacuummeter, 3) portable soil hygrometer, 4) contact-type soil dampness indicator for hotbeds and hothouses, 5) electric apparatus with a gypsum indicator for determining soil dampness, 6) electric device with a glass fiber indicator for determining soil dampness, 7) IL-3-type device for determining dampness in soil and other materials, and 8) Uryvayev's hydraulic soil evaporator of the GPI-51-type.

Information. International Mobile Exhibition of Instruments.

Apparatuses for Measuring Mechanical Properties of Soil

There are 18 apparatuses and devices for testing the mechanical properties of the soil such as soil density meters, a device for determining clod strength, several devices for determining soil stickiness, shearing force meters, compression meters, a device for determining the angle of rest of dry and wet sands, devices for determining the soaking and swelling of earth, etc.

Apparatuses for Water Level Control in Wells and Melioration Systems as Well as for Taking Ground Water Samples for Chemical Analysis.

1) automatic water level recorder of the SMZ-1-type, 2) telemechanical water level meter for melioration systems, 3) M.N. Pol'skiy's device for taking ground water samples, and 4) VNIIGiM device for taking ground water samples.

VIKHLYAYEV, I.I., prof.; OLENIN, A.S., kand.tekhn.nauk; RUNOV, D.I., inzh.; TEREGULOV, I.Kh., inzh.; FATCHIKHINA, O.Ye., kand.sel'skokhoz.nauk; SHISHKOV, K.N., kand.sel'skokhoz.nauk; MINENKOVA, V.R., red.; BALLOD, A.I., tekhn.red.

[Manual on peat] Spravochnik po torfu. Moskva, Gos.izd-vo sel'khoz. lit-ry, 1960. 318 p. (MIRA 14:2)
(Peat)

SHISHKOV, K.N., kand.sel'skokhozyaystvennykh nauk

How to measure water in soils. Zemledelie 23 no.9:76-78 S '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii imeni akademika AN Ecstyakova.
(Soil moisture)

SHISHKOV, K.N.

Soil moisture meter (tensiometer) and its use in the study of soil water balance. Pochvovedenie no.8:100-105 Ag '62. (MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.

(Tensiometers) (Soil moisture)

SHISHKOV, K.N., kand. sel'skokhoz. nauk; SHISHOV, L.L., kand. sel'skokhoz. nauk

Humidity of wilting in some farm crops on peat and turf-peaty soils in the Yakhroma Valley. Izv. TSKHA no.6:69-82 '62. (MIRA 16:6)

(Yakhroma Valley--Plants--Water requirements)

SHISHKOV, L.

Bulgarian language speech audiometry consisting of monosylable words. Khirurgiia, Sofia 12 no.10:889-903 '59.

1. Vissh meditsinski institut - Sofiia. Katedra po ushni, nosni i gurleni bolesti. Zav.katedrata: prof. G. Iankov.
(AUDIOMETRY)

ACCESSION NR: AT4018974 S/3064/63/000/004/0014/0033

AUTHOR: Shishkov, L. K.; Piskunkov, A. F.

TITLE: Some problem in the calculation of hydrogen-containing systems

SOURCE: Moscow. Inzh.-fiz. institut. Nekotory*ye voprosy* inzhenarnoy fiziki (Some problems in engineering physics), no. 4, 1963, 14-33

TOPIC TAGS: hydrogen system, Boltzmann equation, hydrogen cross section, scatter, scattering angle, nuclear reactor, neutron age

ABSTRACT: Taking as their basic formula the Boltzmann equation in a diffusion approximation

$$\nabla\bar{\varphi}_1(u)+\Sigma\varphi_0(u)=\int_{-\infty}^{u}du'\,\Sigma_s(u')\,\varphi_0(u')\,f_0(u'\to u)+$$

$$+\int_{-\infty}^{u}du'\Sigma_{in}(u'\to u)\,\varphi_0(u')+\frac{\chi(u)}{k_{эф}}\int_{-\infty}^{+\infty}\nu_f\Sigma_f(u')\,\varphi_0(u')\,du';$$

$$\frac{1}{3}\nabla\varphi_0(u)+\Sigma\bar{\varphi}_1(u)=\int_{-\infty}^{u}du'\Sigma_s(u')\,\bar{\varphi}_1(u')\,f_1(u'\to u),$$

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where $\varphi_0(u),\ \varphi_1(u) = \varphi_0,\ \varphi_1(u,\ r)$

and $\Sigma = \Sigma_a(u) + \Sigma_s(u) + \Sigma_{in}(u)$

with the boundary condition $2\bar{\Phi}_1\bar{n} - \Phi_0 = 0$ by S, the authors describe the transition to multi-group equations. The hydrogen cross sections are defined by the following formulas

$$\frac{\int_{u_k}^{u_{k+1}} du \int_{u_k}^{u} du' f(u' \to u)\left[X(u') + \int_{-\infty}^{u'} X(u'')\,du''\right]}{\int_{u_k}^{u_{k+1}} \frac{X(u') + \int_{-\infty}^{u'} X(u'')\,du''}{\varphi_s(u')}\,du'}$$

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ACCESSION NR: AT4018974

$$\sigma_H^{l\to k}=\frac{\int_{u_k}^{u_{k+1}}du\int_{u_l}^{u_{l+1}}du'f(u'\to u)\left[X(u')+\int_{-\infty}^{u'}X(u'')\,du''\right]}{\int_{u_l}^{u_{l+1}}\frac{X(u')+\int_{-\infty}^{u'}X(u'')\,du''}{\sigma_s(u')}\,du'}$$

The problem of the non-hydrogen components is also considered and it is shown that for all elements, except hydrogen, the sections take on the form of the "transport approximation"

$$\sigma_0^{k-1\to k}=\frac{(\xi\sigma_s)^{k-1}}{\Delta u_{k-1}}+\sigma_{in}^{k-1\to k}\;\sigma_0^k=\frac{(\xi\sigma_s)^k}{\Delta u_k}+\sigma_a^k+\sigma_{in}^k;$$

$$\sigma_1^k=\sigma_s^k(1-\mu)+\sigma_a^k+\sigma_{in}^k,$$

where ξ is the mean-logarithmic energy loss at impact; μ is the mean cosine of the scattering angle in the nuclei of the given element; σ_a, σ_f are the cross sections in the resonance regions. The method of "moments" for the calculation of neutron age (plain geometry) is considered. The system of equations for the "moments" in plain geometry has the following form

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ACCESSION NR: AT4018974

In the computations two systems of constants were used, which correspond to the energy breakdowns adopted in a previous work (I. V. Gordeyev et al. Spravochnik po yaderno-fizicheskim konstantam dlya raschetov reaktorov. M., Atomizdat, 1960), making it possible to use the data given in that work with respect to the computation of the cross sections of fissionable and certain stable isotopes. The systems considered are a fifteen-group and a ten-group system. The solution of the problems in terms of criticality is considered on the basis of

$$\nabla\bar{\varphi}_{1k} + \Sigma_0^k \varphi_{0k} - \sum_{l=1}^{k-1} \varphi_{0l}\Sigma_0^{l-k} - \frac{\chi_k}{k_{эфф}} \sum_{l=1}^{m} \varphi_{0l}\Sigma_f^l \nu_f^l = 0.$$

$$\frac{1}{3}\nabla\varphi_{0k} + \Sigma_1^k \varphi_{1k} - \sum_{l=1}^{k-1} \varphi_{1l}\Sigma_1^{l-k} = 0; \quad 2\bar{\varphi}_{1k}\bar{n} - \varphi_{0k} = 0 \text{ на } S,$$

and it is shown that practical interest attaches only to the zero harmonic of the stream: $\varphi_0(\bar{r}, u) = \int \varphi(r, u, \bar{\Omega})d\bar{\Omega}$. These equations are so transformed as to exclude $\bar{\varphi}_1$. In a separate section of the paper, the author discusses the determination of the magnitude of the extrapolated addition δ, using a method proposed by V. V. Orlov. By way of example, in checking the accuracy of the methodology, neutron age is calculated in a water - iron mixture. "The authors express their deep gratitude to V. V. Orlov and S. B. Shikov for

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ACCESSION NR: AT4018974

their thorough and attentive advice regarding questions touched on in this article." Orig. art. has: 4 figures, 27 formulas and an appendix.

ASSOCIATION: Inzh.-fiz. Institut, Moscow (Engineering Physics Institute)

SUBMITTED: 00	DATE ACQ: 05Mar64	ENCL: 00
SUB CODE: NP	NO REF SOV: 007	OTHER: 003

Card 6/6

ACC NR: AT7005805 (A,N) SOURCE CODE: UR/0000/66/000/000/0067/0077

AUTHORS: Shikhov, S. B.; Davydov, V. I.; Shishkov, L. K.

ORG: none

TITLE: An efficient analytic method for designing multi-region reactors

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Inzhenerno-fizicheskiye voprosy yadernykh reaktorov (Problems of nuclear reactor engineering and physics); sbornik statey. Moscow, Atomizdat, 1966, 67-77

TOPIC TAGS: NUCLEAR REACTOR DESIGN, nuclear reactor, approximation method, boundary value problem, reactor neutron flux, plane geometry, Legendre polynomial, mathematic matrix

ABSTRACT: The following critical system of equations of a multi-region reactor in an m-group diffusion approximation is examined:

$$D_i^k \Delta \Phi_i^k - (\Sigma_a^k + \Sigma_d^k)_i \Phi_i^k + \sum_{j=1}^{k-1} \Sigma_i'^k \Phi_i^j + \frac{1}{k_{eff}} x_i^k \sum_{j=1}^{m} (\nu_j \Sigma_f)_i^j \Phi_i^j = 0$$

under the boundary conditions

$$\Phi_i^k(R_i) = \Phi_{i+1}^k(R_i);$$

$$D_i^k \nabla \Phi_i^k(R_i) = D_{i+1}^k \nabla \Phi_{i+1}^k(R_i);$$

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$$\nabla\Phi_1^k(0) = 0;$$

$$\gamma^k \nabla\Phi_n^k(R_n) = \Phi_n^k(R_n),$$

where Φ_i^k is the neutron flux of the k-th energy group in the i-th region (k = 1, 2, 3, ..., m; i = 1, 2, 3, ..., n); and R_i is the external boundary of the i-th region. The problem of the distribution of monoenergetic neutrons in a plane-parallel medium is considered. The solution of the vector-matrix version of the initial equation or

$$\Delta\varphi_i + \hat{K}_i\varphi_i = 0$$

is given as:

$$\Phi_i(r) = \cos(\sqrt{\hat{K}_i}\, r)\, A_i + \sin(\sqrt{\hat{K}_i}\, r)\, B_i;$$

$$J_i(r) = -\hat{D}_i\sqrt{\hat{K}_i}\sin(\sqrt{\hat{K}_i}\, r)\, A_i + \hat{D}_i\sqrt{\hat{K}_i}\cos(\sqrt{\hat{K}_i}\, r)\, B_i,$$

where $J_i(r) = \hat{D}_i\nabla\Phi_i(r)$; and A_i and B_i are unknown vectors of dimensionality m. The solution is also given for the case of cylindrical geometry. To construct the critical condition and to determine the neutron fluxes by this method, it is necessary to know only the elements of one of the columns of the matrix L. The order of the matrices is independent of the number of regions. The time-consuming problem of the eigenvalues is eliminated, and the algorithm is easily programmed. Orig. art. has: 41 formulas.

SUB CODE: 18/ SUBM DATE: none/ ORIG REF: 004

Card 2/2

ACC NR: AT7005801 (A,N) SOURCE CODE: UR/0000/66/000/000/0003/0010

AUTHORS: Shishkov, L. K.; Shikhov, S. B.

ORG: none

TITLE: On the existence and uniqueness of a positive solution for the steady state neutron transport equation in media of nuclei being stabilized

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Inzhenerno-fizicheskiye voprosy yadernykh reaktorov (Problems of nuclear reactor engineering and physics); sbornik statey. Moscow, Atomizdat, 1966, 3-10

TOPIC TAGS: neutron transport, uniqueness theorem, existence theorem, TRANSPORT EQUATION, NEUTRON DISTRIBUTION, DISTRIBUTION FUNCTION, OPERATOR EQUATION

ABSTRACT: Existence and uniqueness theorems are proved for a positive solution of the steady state neutron transport equation. In operator form, the quasi-critical reactor equation is given by

$$\hat{L}n=\hat{K}_s n+\frac{1}{\lambda}\hat{K}_f n,$$

where n is the neutron density distribution function. In terms of characteristic values, this equation is written as

$$\hat{A}n=\lambda n,$$

where

$$\hat{A}=(1-\hat{L}^{-1}\hat{K}_s)^{-1}\hat{L}^{-1}\hat{K}_f.$$

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ACC NR: AT7005801

It is shown that for $p' > 1$, $q' < \infty$, connected by the expression $1/p' + 1/q' = 1$, the operator A exists near some positive $\lambda = \lambda_0$ and is bounded by the positive operator $L_D^{(p)}$ for $1 \leq p < p'$. Furthermore, the operator A has unique non-negative characteristic elements n_0 in the L_D^1 space which satisfy the boundary condition $n(R,E,\Omega) = 0$. Orig. art. has: 20 equations.

SUB CODE: 12,20/ SUBM DATE: none/ ORIG REF: 005

Card 2/2

L 25430-66 EPF(n)-2/EWT(m)/ETC(f)/EWG(m) WW/GS
ACC NR: AT6005815 SOURCE CODE: UR/0000/65/000/000/0070/0077

AUTHORS: Slesarev, I. S.; Shikhov, S. B.; Khromov, V. V.; Shmelev, A. N.; Kuz'min, A. M.; Shishkov, L. K.

ORG: none

TITLE: Design of fast reactor using electronic computers.

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Nekotoryye voprosy fiziki i tekhniki yadernykh reaktorov (Some problems in the physics and engineering of nuclear reactors). Moscow, Atomizdat, 1965, 70-77

TOPIC TAGS: nuclear reactor technology, nuclear reactor operation, nuclear reactor characteristics, fast reactor, computer application, algorithm, electronic computer/ M-20 electronic computer

ABSTRACT: The purpose of the paper was to develop a computer algorithm which, on the one hand, is sufficiently simple and requires few operations, and on the other hand displays the quantitative and qualitative characteristics of different reactor variants, so as to permit the best design choice. A comprehensive computation program

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L 25430-66

ACC NR: AT6005815 O

intended for the M-20 computer is described. This program, which is based on a single-group method proposed by one of the authors. (Shikhov, with A. I. Novozhilor, Atomnaya energiya v. 8, 209, 1960) in conjunction with the method of conditional separation of variables, makes it possible to determine the critical load for established dimensions of the reactor, to determine the reflector saving, and to evaluate the integral of many-group fluxes and the neutron importance in all the zones of the reactor. The program also includes thermal calculations which yield the diameter of the fuel elements, the heat flux to the surface, and the main heat exchange parameters and the ratio of the volumes of the components of the active zone to the total volume. In addition to this program, there has been developed at the Moscow Engineering Physics Institute a program, based on a diffusion-transport approximation, for calculating the critical parameters of a cylindrical reactor by the method of conditional separation of variables. This calculation is carried out by a multigroup method with an electronic computer, and makes it possible to calculate the critical parameters of a many-zone reactor. It is used essentially to calculate the finally chosen optimal variants of the reactors, since it requires more computer time than the foregoing comprehensive

Card 2/3

L 25430-66
ACC NR: AT6005815

program. Mention is also made of a program developed under the leadership of G. I. Marchuk to solve the cylindrical problem by conditional separation of variables with a single reflector saving for all groups. This should lead to a more accurate allowance for the edge effects in the lower part of the neutron spectrum. Orig. art. has: 7 formulas and 1 table.

SUB CODE: 18,09/ SUBM DATE: 05Jun65/ CRIG REF: 001/ OTH REF: 001

Card 3/3 CC

SHISHKOV, M., inzh.

Serial or parallel connection of condenser batteries in distribution networks. Elektroenergiia 15 no.6:21-24 Je '64.

SHISHKOV, N. (Bolgariya)

Control of infectious diseases of birds in Bulgaria.
Veterinariia 40 no.4:76-78 Ap '63. (MIRA 17:1)

OPENOV, G.A.; SHISHKOV, N.F.

Programming regulators for ebonite vulcanization. Kauch. i rez. 22 no.8:48-49 Ag '63. (MIRA 16:10)

8(6) SOV/[illegible]-59-9-24/33

AUTHOR: Shishkov, N.I., Engineer

TITLE: An Accident During Work on an Electric Power Line Under Load

PERIODICAL: Energetik, 1959, Nr 9, pp 33-34 (USSR)

ABSTRACT: The author describes the causes which led to the electrocution of three linemen working on a 110 kv line under load. The linemen had the task of exchanging an intermediate П -shaped support of normal height with wooden braces against a 2 m higher support with rail braces of 8 m length. For this purpose the linemen had mounted a pulley 0.9 m underneath the cross member of the support and another pulley on the wooden brace. A 1.5 ton winch was placed at a distance of 12 m from the support. A steel cable was run over the pulley for hoisting of the rail braces, as shown in Figure 1. One of the legs of the support had been changed in this manner. While lifting one of the rail braces for the second leg, the cable snapped and was coiled around

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An Accident During Work on an Electric Power Line Under Load

one of the conductors, as shown in Figure 2. Three linemen who were turning the winch were electrocuted. This accident occured because the Instructions for the repair of 35-220 kv lines under load were not followed and because the work was not properly organized. Not only that the steel cable was not properly fastened to the rail, but the winch was not grounded and necessary precautions had not been taken. In the author's opinion, there was no necessity for lifting the rail braces at all, since they could have been lowered into the pit preliminarily. In this case they would not have been lifted to such a height and the pulley could have been installed lower. In addition, the repair team performed such a replacement for the first time and had not received proper instructions. The author states that this operation should have been performed by switching off the load, since this was required anyway for installing the cross member. The leading engineers of the power distribution network deviated from

An Accident During Work on an Electric Power Line Under Load

the direct organization of such operations and their supervision. They controlled the work of the linemen inadequately. There are 2 diagrams.

Card 3/3

25(5) SOV/91-59-10-26/29

AUTHOR: Shishkov N.I., Engineer

TITLE: New "Safety Regulations for Operation and Building of Installations and Communications Systems"

PERIODICAL: Energetik, 1959, Nr. 10, p 39, (USSR)

ABSTRACT: The new "Safety Regulations for Operation and Building of Installations and Communications Systems" were approved in 1958 by the Presidium of the Central Committee of Trade-Union of Workers engaged at electric power stations and in the electrical industry, and published in the current year by the Gosenergoizdat. The new regulations have been worked out on the basis of a revision of former "Safety Regulations for Operation of Special (High-Voltage) Air Communication Lines of Energetic Systems of the Ministry of Electric Power Stations" and "Safety Regulations for Operation of Communication Systems, Telemechanics and Protective Devices of Electro-Transmissions", which were approved in 1947, respectively in 1957. When working out the new regulations, experience in power engineering accumulated in the course of the last ten years was taken into consideration.

Card 1/1

MILAGIN, M.F., SHISHKOV, N.I.

Birefringence and strength of polymers

Report presented at the 13th Conference on high-molecular compounds
Moscow 8-11 Oct 62

dendritic ramifications and so-called "whiskers" is characteristic of the growth of BeO crystals from the gaseous phase. Contrary to G. K. Khardi (Hardy) (Ref. 3: Uspekhi fiziki metallov (Progress in metal physics), 3, M., 1960), the authors assume that ramifications and "whiskers" grow at a certain angle with primary crystals: 60, 90, and 120°. This corresponds to the crystallization of one branch in the direction of the a-axes of the primary crystal cell. Some BeO crystals become opaque due to a carbon film (evaporated from the graphite block). So far, the type of carbon has not been explained. The formation of Be_2C is impossible, since this reaction only takes place above 1950°C. The initial stage of carbon deposition on thin platelets is characteristic: in transmitted light, the thin C film forms a pattern whose main element is an equilateral triangle (side: $1 - 5 \cdot 10^{-4}$ cm) analogous to the surface of the hexagonal packing consisting of elementary tetrahedrons (e.g. MO_4^{6-}) (Ref. 4: B. F. Ormont, Struktury neorganicheskikh veshchestv (Structures of inorganic substances), 1950). The authors assume this C film to reflect the crystal relief and the electron-microscopic replicas. A second, less probable cause of the formation of powder patterns may be the selective C adsorption by certain sections of the plane single crystal surface. Usually, the rows formed by

Card 2/4

S/080/63/036/002/004/019
D205/D307

AUTHORS: Budnikov, P. P. and Shishkov, N. V.

TITLE: On the theory of the crystallization of thermoplastic slips during casting and freezing

PERIODICAL: Zhurnal prikladnoy khimii, v. 36, no. 2, 1963, 272-283

TEXT: The present work was motivated by the absence of theoretical background relating to the crystallization of ceramic slips and to the mutual relations of main technological factors. The most important process during the production of semifinished slip-cast articles with a thermoplastic bond is crystallization of the slip on metallic or other surfaces. The condition for full slip crystallization in a non-cooled mold is, for a periodic process, that $Q_s \leqslant Q_m$, where Q_s and Q_m are respectively the quantities of heat extracted from the slip and mold; the greater this inequality the more rapidly will the slip crystallize. Kinetics of the formation of castings are discussed mathematically by considering the heat transfer slip $\longrightarrow$ casting $\longrightarrow$ mold, taking into account the

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S/080/63/036/002/004/019
D205/D307

On the theory of ...

casting conditions and geometry of the article. It is shown that calculation of technological parameters and optimum casting conditions is feasible in simple cases (water-cooled molds, continuous processes). Validity of certain derived relationships was confirmed experimentally on slips of Al_2O_3 and BeO suspended in a mixture of paraffin and beeswax. There are 7 figures and 7 tables.

SUBMITTED: May 10, 1962

Card 2/2

L 20356-65 EWP(e)/EWP(b)/EPA(s)-2/EWT(m)/EPF(n)-2/EPA(w)-2/T Pab-10/Pt-10/ 40
ACCESSION NR: AP4049088 Pu-4 WH S/0072/64/000/011/0024/0026 39 B

AUTHOR: Budnikov, P.P. (Academician AN UkrSSR), Shishkov, N.V. (Candidate of technical sciences)

TITLE: The criterion of homogeneity, semifinished ceramic, nonhomogeneity coefficient, control automation

SOURCE: Steklo i keramika, no. 11, 1964, 24-26

TOPIC TAGS: ceramic homogeneity, semifinished ceramic, nonhomogeneity coefficient, control automation 15

ABSTRACT: The various means and formulas used for the control of homogeneity are evaluated and found unsatisfactory, since they do not take the size of the article into account. A constant representing the ratio of the size of the test specimen to that of the object whose nonhomogeneity has to be determined is suggested and the formula for finding the specimen volume is presented. The mean homogeneity of the object is determined by finding the mean square deviation from the mean density. The coefficient of nonhomogeneity (R) is determined as the relative mean square deviation of local density values from the density value of the whole object; this is expressed in percent and its formula is shown. The smaller the objects the lower the accuracy of R, due to errors

Card 1/2

ACC NR: AP6036902 (A) SOURCE CODE: UR/0226/66/000/011/0062/0065

AUTHOR: Budnikov, P. P.; Shishkov, N. V.

ORG: Moscow Chemical Engineering Institute im. D. I. Mendeleyev (Moskovskiy chimico-tekhnologicheskiy institut)

TITLE: Microstructure of molecular cermets

SOURCE: Poroshkovaya metallurgiya, no. 11, 1966, 62-65

TOPIC TAGS: cermet, molecular cermet, molecular cermet microstructure, molecular cermet preparation, molecular cermet property

ABSTRACT: A method of preparing molecular cermets is described. Molybdates, tungstates and chromates precipitated from aqueous solutions were subjected to selective reduction with hydrogen and the obtained powders were sintered. The zirconium oxide and molybdenum powders were obtained by reduction of zirconium molybdate at 1100C (for 1 hr) and sintered at 1600—2000C in vacuum. The zirconium oxide was stabilized in tetragonal form by the addition of 15% cerium oxide. The size of metal-phase particles increased from 1 to 4 μ with increases in sintering temperature from 1600 to 2000C. The calcium-molybdenum-zirconate cermet was sintered from coprecipitated calcium molybdate and zirconium molybdate powders. The average size of molybdenium particles in the cermet was 0.5 μ. The particles of the metal phase had a spherical shape. The nichrome-chromium-sesquioxide cermet was sin-

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ACC NR: AP6036902

tered in hydrogen at 1370C for 2 hr from powders obtained by reduction of basic nickel chromate with hydrogen. The size of chromium-oxide particles was 0.3—1.5 μ. The uniformity of phase distribution and dispersion of particles in all the cermets, obtained on basis of molybdates and other compounds, is considerably higher than in cermets prepared by conventional methods of sintering metal and oxide-powder mixtures. High dispersion of initial powders of molecular cermets contributes to intensive sintering. Consequently, the density of major cermets, especailly those based on molybdenum, is close to theoretical. The cermet microstructure and the size of grains of the metallic and oxide phases depend on the dispersion of initial materials, temperature and reduction rate, and sintering temperature. Orig. art. has: 6 figures. [WW]

SUB CODE: 11/ SUBM DATE: 11Apr66/ ORIG REF: 003/ OTH REF: 003/
ATD PRESS: 5109

Card 2/2

[illegible], P.P., akademik; [illegible], N.V., kand.tekhn.nauk

Criteria of [illegible] of a ceramic [illegible]. Stek.
i ker, 21 no.1:[illegible] '64. (MIRA 18:[illegible])

1. AN UkrSSR (for [illegible]).

L 17322-63 EPR/EWT(l)/EPF(n)-2/EWP(q)/EWT(m)/BDS AFFTC/ASD/SSD Ps-4/
Pu-4 WW/JD
ACCESSION NR: AP3004908 S/0120/63/000/004/0152/0154

AUTHOR: Semerchan, A. A.; Shishkov, N. Z.; Isaykov, V. K.

TITLE: Large-volume apparatus for high-pressure research

SOURCE: Pribory*i tekhnika eksperimenta, no. 4, 1963, 152-154

TOPIC TAGS: high-pressure research, high-pressure chamber

ABSTRACT: Two cylindrical heavy-wall chambers are described. One 44-liter-capacity bathyscaphe type can withstand external pressures up to 1,200 atm and is intended for oceanological studies. Another 70-liter-capacity chamber of similar design can withstand internal pressures up to 1,200 atm at 200 C and is intended for physicochemical studies and processing. Structurally, each chamber consists of an internal stacked-up-ring cylinder and an external solid-steel cylinder. Seals are described in detail. "The authors are thankful to V. V. Shuleykin and L. F. Vereshchagin for their attention and valuable advice."

Card 1/2 Association: Institute of High-Pressure Physics, AN USSR.

SHISHKOV, P., inzh.

Specialization in building, and its problems. Stroitelstvo 10 no.1:1-5 Ja-F '63.

1. Chlen na Redaktsionnata kolegiia, "Stroitelstvo."

SHISHKOV, P., inzh.

For a uniform normative basis in building. Stroitelstvo
11 no.5:20-22 S-O '64.

SHISHKOV, P. A., Cand T ch Sci (diss) -- "Investigation of the process of moving rock and the overburden of an ore mine coupled with underground work (The example of the Leninogrosk group of deposits)". Alma-Ata, 1960. 16 pp (Acad Sci Kazakh SSR, Inst of Mining), 150 copies (KL, No 15, 1960, 137)

TOLCHINSKAYA, F.S.; SHISHKOV, P.A.

Calculation of losses and impoverishment of mines in the Leninogorsk complex metal. combine. Trudy Alt.GMNII AN Kazakh.SSR 12:118-129 '62. (MIRA 15:8)

(Altai Mountains--Mining engineering)

POPIY, M.P., gornyy inzh.; KURNIKOV, D.A., gornyy inzh.; SHISHKOV, P.A., kand. tekhn. nauk; KHARITONOV, V.P., gornyy tekhnik; NEUSTROYEV, L.G., gornyy inzh.

Method of profiling vertical mines shafts from fixed plumb lines. Gor. zhur. no.7:67-68 Jl '64. (MIRA 17:10)

1. Leninogorskoye shakhtostroyupravleniye (for Popiy, Kurnikov). 2. Leninogorskiy polimetallicheskiy kombinat (for Shishkov, Kharitonov). 3. Rudnik imeni 40-letiya Vsesoyuznogo Leninskogo kommunisticheskogo soyuza molodezhi (for Neustroyev).

SHISHKOV, P. F.

At the Dnepropetrovsk Mining Institute in Artem Sergeyev from April 1939 to April 1947, the following dissertations were defended in connection with attaining the scholarly degree of Candidate of Technical Sciences (specializing in mining electrical engineering: P. F. Shishkov on 28 May defended a dissertation on the subject "The elements of investigating the operation and a calculation of the productivity of heavy cutting machines".

The official opponents of this dissertation were Candidate of Technical Sciences Docent Demidov and Candidate of Technical Sciences Docent M. Ya. Borsun'.

A experimental investigation was made of the operation of a cutting machine in lava. A power chart recorded with a registering watt meter was compared with the heating of the motor and with the exact timing of the productivity of cutting. As a result a method was worked out for calculating the productivity of a heavy cutting machine in cutting work of varying difficulty, and recommendations were made concerning the personnel to use the machinery.

SO: Elektrichestvo [Electricity], No. 10, October 1947. Moscow.

BUN'KO, V.A.; MAYMIN, S.R.; SHISHKOV, P.F.

[Electrical equipment of concentration plants and briquette factories] Elektrooborudovanie obogatitel'nykh i briketnykh fabrik. Moskva, Ugletekhizdat, 1953. 271 p. (MLRA 7:6)
(Electric machinery) (Briquets (Fuel)) (Coal preparation)

SHISHKIN, I. F.

SHISHKIN, I. F.--"Non-Equilibrated Ore-Raising Equipment for Deep Mines." Min Higher Education USSR. Leningrad Order of Lenin and Order of Labor Red Banner Mining Inst. Leningrad-Dnepropetrovsk, 1955. (Dissertation for the Degree of Doctor in Technical Science)

So Knizhnaya Letopis'
No 2, 1956

SHISHKOV, PETR FEDOTOVICH

MAYMIN, Semen Rafailovich; SHISHKOV, Petr Fedotovich; MIKHEYEV, Yu.A., redaktor; NADEINSKAYA, A.A., tekhnicheskiy redaktor

[Collection of problems and exercises for electric engineering in mining] Sbornik zadach i uprazhnenii po gornoi elektrotekhnike. Moskva, Ugletekhizdat, 1955. 217 p. (MLRA 9:2)
(Electricity in mining)

SHISHKOV, P.F., dotsent, kand.tekhn.nauk; SHISHKOV, A.I., kand.tekhn.nauk

Problem of planning systems of dynamic braking of winches with tail-rope haulage on inclined workings. Vop. rud. transp. no.2:302-311 1957. (MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Winches--Brakes)

SUKHANOV, A., doktor tekhnicheskikh nauk; KUCHERYAVYY, F.; SHISHKOV, P.

Give a realistic basis to the final projects of students. Mast. ugl. 9 no.6:22 Je '60. (MIRA 13:7)

1. Direktor Moskovskogo gornogo instituta. (for Sukhanov). 2. Dekan gornogo fakul'teta Dnepropetrovskogo gornogo instituta (for Kucheryavyy). 3. Dekan shakhtostroitel'nogo fakul'teta Dnepropetrovskogo gornogo instituta (for Shishkov).
(Mining engineering--Study and teaching)

GAL'PERIN, G.D.; SHISHKOV, P.G.; PEYSAKHOVICH, A.I.; GOROBTSOV, A.M.

The BVS small-roller flour mill. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.11:74-76 '62. (MIRA 15:11)
(Flour mills)

BRYUKHANOV, A.N.; LAKHTIN, Yu.M.; MALYSHEV, A.I.; NIKOLAYEV, G.N.; SHUVALOV, Yu.A.; SHISHKOV, P.P., dotsent, kand.tekhn.nauk; retsenzent; ARSHINOV, V.A., kand.tekhn.nauk, retsenzent; LOSEV, I.S., inzh., retsenzent; YEGOROVOV, A.N., prof., red.; VYDRIN, P.G., inzh., red.; SOKOLOVA, T.F., tekhn.red.

[Technology of metals] Tekhnologiia metallov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1954. 624 p.
(MIRA 13:12)

(Metals) (Metalwork)

SHISHKOV, P.P., kandidat tekhnicheskikh nauk, dotsent.

Effect of annealing on the mechanical properties and structure of the 30KhGSA cast steel. [Trudy] MVTU no.41:84-93 '55. (MLRA 9:10)

(Steel alloys--Heat treatment)

37202
S/169/62/000/004/067/103
D218/D302

3.2410 (2205, 2705, 2805)

AUTHORS: Baradzey, L.T., Logachev, Yu.I., and Shishkov, P.P.

TITLE: A study of cosmic-ray variations at altitudes of 9 - 12 km

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 4, 1962, 13, abstract 4G66 (V sb. Kosmicheskiye luchi, no. 3, M., AN SSSR, 1961, 137-142)

TEXT: A report is given of the results of measurements of the general, hard, and neutron cosmic-ray components at altitudes of 9 - 12 km, which were carried out from an airplane in 1959 and covered the geomagnetic latitude range between 43° and 59°N. The readings of the instruments were recorded at intervals of five minutes. The following values of the barometric coefficients were determined from the altitude variation of the intensity in the pressure range 750 - 220 g/cm^2 : (0.495 ± 0.009)% g^{-1}cm^2 for the general component (0.405 ± 0.014)% g^{-1}cm^2 for the penetrating component and (0.654 ± 0.27)% g^{-1}cm^2 for the neutron component. At the altitude of 9 km in the latitude range 52° - 60°N, the latitude effect in the neutron

Card 1/2

ACC NR: AT7005805 (A,N) SOURCE CODE: UR/0000/66/000/000/0067/0077

AUTHORS: Shikhov, S. B.; Davydov, V. I.; Shishkov, L. K.

ORG: none

TITLE: An efficient analytic method for designing multi-region reactors

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Inzhenerno-fizicheskiye voprosy yadernykh reaktorov (Problems of nuclear reactor engineering and physics); sbornik statey. Moscow, Atomizdat, 1966, 67-77

TOPIC TAGS: NUCLEAR REACTOR DESIGN, nuclear reactor, approximation method, boundary value problem, reactor neutron flux, plane geometry, Legendre polynomial, mathematic matrix

ABSTRACT: The following critical system of equations of a multi-region reactor in an m-group diffusion approximation is examined:

$$D_i^k \Delta \Phi_i^k - (\Sigma_a^k + \Sigma_d^k)_i \Phi_i^k + \sum_{j=1}^{k-1} \Sigma_i'^k \Phi_i' + \frac{1}{k_{eff}} x_i^k \sum_{j=1}^{m} (\nu_f \Sigma_f)_i' \Phi_i' = 0$$

under the boundary conditions

$$\Phi_i^k(R_i) = \Phi_{i+1}^k(R_i);$$

$$D_i^k \nabla \Phi_i^k(R_i) = D_{i+1}^k \nabla \Phi_{i+1}^k(R_i);$$

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$$\nabla\Phi_1^k(0) = 0;$$

$$\gamma^k \nabla\Phi_n^k(R_n) = \Phi_n^k(R_n),$$

where Φ_i^k is the neutron flux of the k-th energy group in the i-th region (k = 1, 2, 3, ..., m; i = 1, 2, 3, ..., n); and R_i is the external boundary of the i-th region. The problem of the distribution of monoenergetic neutrons in a plane-parallel medium is considered. The solution of the vector-matrix version of the initial equation or

$$\Delta\varphi_i + \hat{K}_i\varphi_i = 0$$

is given as:

$$\Phi_i(r) = \cos(\sqrt{\hat{K}_i}\, r)\, A_i + \sin(\sqrt{\hat{K}_i}\, r)\, B_i;$$

$$J_i(r) = -\hat{D}_i\sqrt{\hat{K}_i}\sin(\sqrt{\hat{K}_i}\, r)\, A_i + \hat{D}_i\sqrt{\hat{K}_i}\cos(\sqrt{\hat{K}_i}\, r)\, B_i,$$

where $J_i(r) = \hat{D}_i\nabla\Phi_i(r)$; and A_i and B_i are unknown vectors of dimensionality n. The solution is also given for the case of cylindrical geometry. To construct the critical condition and to determine the neutron fluxes by this method, it is necessary to know only the elements of one of the columns of the matrix L. The order of the matrices is independent of the number of regions. The time-consuming problem of the eigenvalues is eliminated, and the algorithm is easily programmed. Orig. art. has: 41 formulas.

SUB CODE: 18/ SUBM DATE: none/ ORIG REF: 004

Card 2/2

ACC NR: AT7005808 (A,N) SOURCE CODE: UR/0000/66/000/000/0090/0095

AUTHORS: Nikolayev, M. N.; Ignatov, A. A.; Khokhlov, V. F.; Shikhov, S. B.

ORG: none

TITLE: Method of subgroups and its application in the diffusion approximation

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Inzhenerno-fizicheskiye voprosy yadernykh reaktorov (Problems of nuclear reactor engineering and physics); sbornik statey. Moscow, Atomizdat, 1966, 90-95

TOPIC TAGS: transport equation, neutron diffusion, nuclear reactor, reactor neutron flux, neutron spectrum

ABSTRACT: The method of subgroups for solving the neutron transport equation with consideration of the energy dependence is discussed for the case when the structure of the neutron spectrum depends significantly on diffusion. Algorithms are given for calculating the distribution of subgroups in adjacent media, one of which has a resonance structure of the total cross section $\Sigma_t(u)$. The portion of the cross section curve containing the resonances where the average resonance parameters are approximately constant is separated out. The neutrons in the interval can be distributed into subgroups corresponding to the distribution of the magnitude of the total cross section. The diffusion equation for neutrons of subgroup k of the

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ACC NR: AT7005808

resonance medium is expressed in the form

$$\left.\begin{aligned} \frac{1}{r^{\alpha}}\frac{dJ^k(r)}{dr} &= F^k(r) - \Sigma_t^k \Phi^k(r); \\ J^k(r) &= -r^{\alpha} D^k \frac{d\Phi^k(r)}{dr}, \end{aligned}\right\}$$

where the superscript k indicates quantities relating to the subgroup k, J is the neutron current, Φ is the neutron flux, F is the subgroup sources including neutrons scattered into it and remaining in it, D is the diffusion constant, and α is a parameter determined by the system geometry. Application of the method of subgroups to the region of high energies is also discussed. Orig. art. has: 15 equations.

SUB CODE: 18/2/SUBM DATE: none/ ORIG REF: 004/ OTH REF: 003

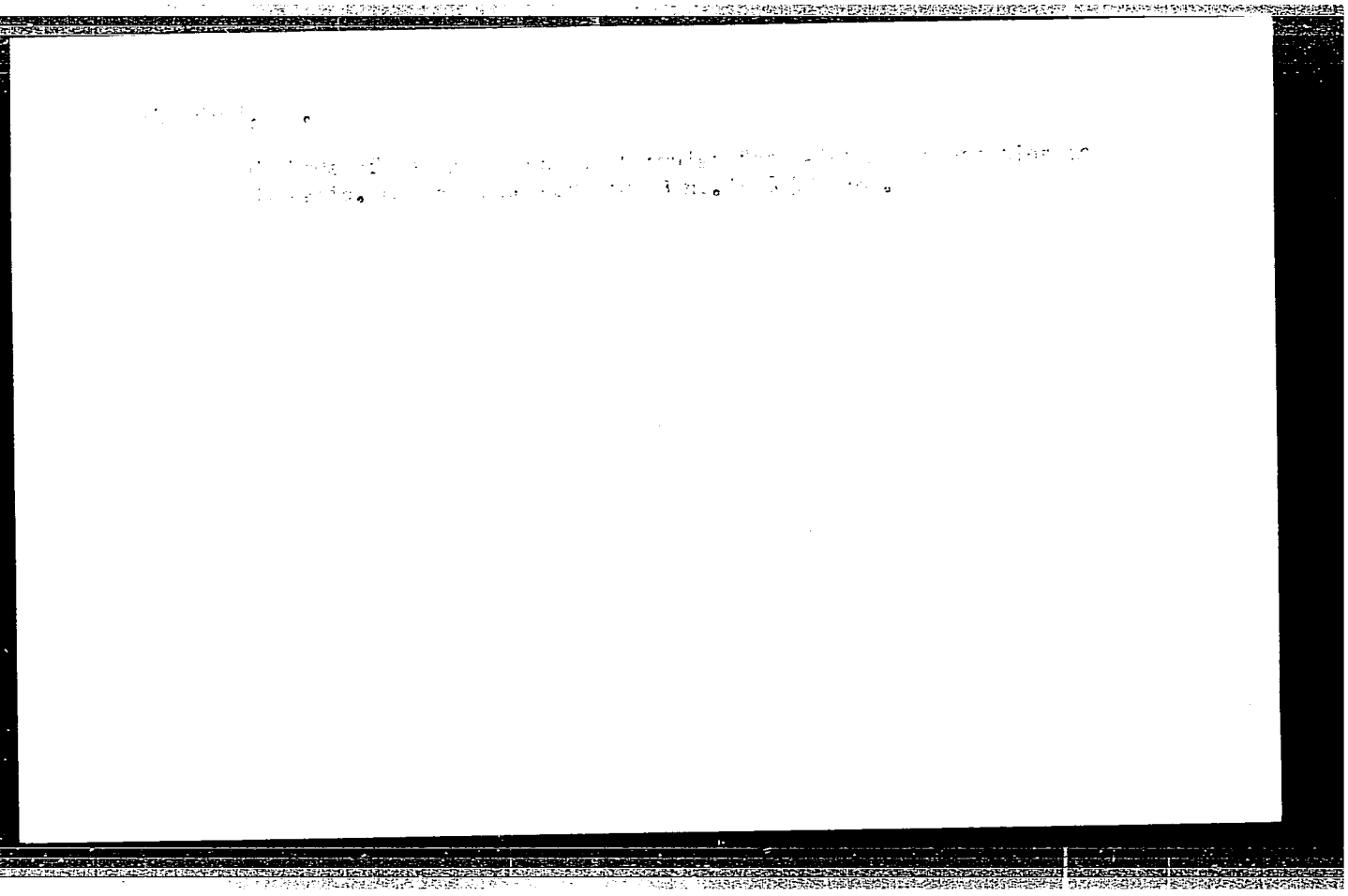
Card 2/2

SHISHKOV, Stefan, inzh.

Hydraulic dimensioning of trapezoid nonlined canals. Khidrotekh i melior 7 no.9:264-267 '62.

SHISHKOV, St.

Methods of determining individual formulas for rain intensities in Bulgaria. Khidro i meteorolog 13 no. 2:25-34 '64.



SMIRNOV, S. V.

Physics - Study and Teaching

Pioneer physics assembly. Fiz. v. shkole 12, no. 3, 1952.

9. MONTHLY LIST OF RUSSIAN ACCESSIONS, Library of Congress, September 1952. Uncl.

SHISHKOV, S.V. Cand Tech Sci - - (diss) "Optimal regime for the radiation contact urging of asbestos-rubber clutch plates," Moscow, 1960, 14 pp (Moscow Power Engineering Institute) (KL, 32-60, 125)

LEBEDEV, P.D.; SHISHKOV, S.V.

Effect of contact heat supply during the radiation drying of moist materials. Inzh.-fiz.zhur. no.7:17-21 Jl '60. (MIRA 13:7)

1. Energeticheskiy institut im. G.M.Krzhizhanovskogo, g.Moskva.
(Materials--Drying)
(Heat--Radiation and absorption)

ACCESSION NR: AP4045701 S/0138/64/000/009/0029/0031

AUTHOR: Shishkov, S. V.

TITLE: Determination of the heat transfer coefficients of asbestos rubber

SOURCE: Kauchuk i rezina, no. 9, 1964, 29-31

TOPIC TAGS: rubber, asbestos rubber, thermal diffusivity, thermal conductivity, specific heat, heat transfer coefficient

ABSTRACT: The thermal diffusivity, thermal conductivity and specific heat of asbestos rubber were investigated by the method of an instantaneous heat source, consisting essentially of the following: a flat instantaneous heat source is placed between equally thick layers of test material, which are placed between equal plaster control samples in the form of parallelopipeds. It is assumed that these are unlimited bodies in the direction of the heat stream. The heat therefore spreads over the entire assembly and the temperature difference between the differently heated elements of the body decreases. During the equalization process, the temperature of the elements of the body outside the heating source increases, passes through a maximum and then decreases. The closer the thermocouple to the instantaneous heat source, the higher the maximum temperature and the more rapidly it is measured by the thermocouple. The experimental device is illustrated and

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ACCESSION NR: AP4045701

described in detail. Test samples were 100 x 100 x 5 mm plates with varying moisture content. The experiment took 10-15 min. and readings were made with the galvanometer every 0.5 min. Formulas are given for the determination of the heat evolved by the electric heater, and for the thermal conductivity, diffusivity and specific heat of the test material. The specific gravity and heat transfer coefficients of asbestos rubber are plotted against the moisture content (1-32%, which is the ordinary moisture content of asbestos rubbers). The thermal diffusivity, conductivity and specific heat were found to increase regularly with increasing moisture content up to about 12%. This is due to the fact that the point contact of the particles of dry material with the air layer, for which $\lambda = 2.17 \times 10^{-2}$ kcal/m x hr.°C, is gradually replaced by a closer contact due to the interlayers filled with water, for which $\lambda = 0.515$ kcal/m x hr°C. A further increase in moisture content produces only slight increases in specific heat and thermal conductivity and decreases the thermal diffusivity. This is explained by the transfer of the moisture from the capillary - bound state to the osmotically bound state, in which the liquid moves in the material in the presence of air entrapped in the pores. Orig. art. has: 3 figures and 5 formulas.

ASSOCIATION: Yaroslavskiy tekhnologicheskiy institut (Yaroslav Technological Institute)

Card 2/3

ACCESSION NR: AP4045701

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NO REF SOV: 003 OTHER: 000

Card 3/3

USSR/Medicine - Veterinary, Textbook

Card 1/1

Author : Shishkov, V. and Ginzburg, A., Veterinary Physicians (reviewers)
Title : "Review of 'Laboratornyye issledovaniya v veterinarnoy klinicheskoy diagnostike' (Laboratory examinations in veterinary clinical diagnosis)" by P. S. Ionov et al
Periodical : Veterinariya, 31, 58-60, Apr 1954
Abstract : P. S. Ionov, V. G. Mukhin, A. I. Fedotov, and I. G. Sharabrin have intended this book primarily for students in veterinary colleges and to provide reference material for laboratory workers and practicing veterinary physicians. Importance of this book is enhanced by the fact that all previously published textbooks and manuals on the methods of clinical and laboratory diagnosis in veterinary medicine have been sold out and have become somewhat obsolete. Notable advances have been made in the past few years in the Soviet Union in the field of veterinary medicine; veterinary clinicists have contributed much new to the veterinary laboratory-clinical diagnostic methods. All these advances have been incorporated in this book. The book was published in 1952 by the State Publishing House of Sovhoz and Kolkhoz Literature, Moscow, 252 pp, Fifteen thousand copies.

Institution :

Submitted :

SHISHKOV, V.

Losses of swine from bacillary erysipelas should be drastically reduced. Veterinariia 33 no.5:9-11 My '56. (MLRA 9:8)

1. Zamestitel' nachal'nika Glavnogo upravleniya veterinarii Ministerstva sel'skogo khozyaystva RSFSR.
(Swine--Diseases and pests) (Erysipeloid)

NOVIKOV, Igor' Dmitriyevich; SHISHKOV, Vitaliy Alekseyevich; DROZHZHIN, Yu.N., redaktor; NIKOLAYEV, B.L., tekhnicheskiy redaktor

[Homemade astronomical devices and instruments] Samodel'nye astronomicheskie pribory i instrumenty. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1956. 54 p. (MLRA 10:6)
(Astronomical instruments)

S[illegible]K[illegible], [illegible]

"Pr[illegible] a T[illegible] by the Rolling Method,"
Stan[illegible] Ins[illegible], [illegible], 193[illegible]. E[illegible]

[illegible]-1[illegible], [illegible] Col. 1 [illegible].